

**Notice of Allowability**

Application No.

08/920,272

Applicant(s)

MILLER ET AL.

Examiner

Art Unit

Joseph F. Murphy

1646

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Notice of Appeal filed 11/19/2004.
2. ☒ The allowed claim(s) is/are 32-33, 41-42, 49, 52, 58, 60, 64-66 renumbered as 3-4, 5-6, 1, 2, 7, 8, 9-11.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

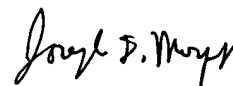
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 06132005.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**JOSEPH MURPHY**  
**PATENT EXAMINER**

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael J. Belliveau on 6/13/2005.

The application has been amended as follows:

***In the Claims:***

1-31. (Cancelled)

32. (Currently amended) The composition ~~isolated population of stem cells~~ of claim 49, wherein said peripheral tissue comprises olfactory epithelium.

33. (Currently amended) The composition ~~isolated population of stem cells~~ of claim 49, wherein said peripheral tissue comprises tongue.

34-40. (Cancelled)

41. (Currently amended) The composition of claim 49 ~~isolated population of stem cells of any of the claims 49-52~~, wherein said neural stem cells are transfected with a heterologous gene.

42. (Currently amended) The composition ~~isolated population of stem cells~~ of claim 41, wherein said gene encodes a trophic factor.

43-48. (Cancelled)

49. (Currently amended) A composition consisting of an isolated population of neural stem cells of a postnatal mammal and a carrier, wherein said neural stem cells form non-adherent clusters in culture, are self renewing, proliferate in an EGF-independent manner, express nestin, and differentiate, in the presence of serum, into neurons expressing tyrosine hydroxylase, said stem cells produced by a method comprising the steps of:

(a) providing a culture of peripheral tissue containing sensory receptors from said mammal;

(b) isolating neural stem cells from said peripheral tissue, based on the tendency of said neural stem cells to aggregate and form non-adherent clusters in culture, wherein said neural stem cells form non-adherent clusters in culture, are self renewing, proliferate in an EGF-independent manner, express nestin, and differentiate, in the presence of serum, into neurons expressing tyrosine hydroxylase ~~express nestin, are self renewing, are capable of producing neurons and glia, and can differentiate into dopaminergic neurons.~~

50-51. (Cancelled)

52. (Currently amended) A composition consisting of an isolated population of neural stem cells of a postnatal mammal and a carrier, wherein said neural stem cells form non-adherent clusters in culture, are self renewing, proliferate in an EGF-independent manner, express nestin, and differentiate, in the presence of serum, into neurons expressing tyrosine hydroxylase ~~and can differentiate into cell types of the central nervous system.~~

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53-57. (Cancelled)

58. (Currently amended) The composition of claim 49 ~~isolated population of stem cells of any of the claims 49-52~~, wherein said neural stem cells are human stem cells.

59. (Cancelled)

60. (Currently amended) The composition of claim 49 ~~isolated population of stem cells of any of claims 49-52~~, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

61-63. (Cancelled)

64. (New) The composition of claim 52, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

65. (New) The composition of claim 52, wherein said neural stem cells are human stem cells.

66. (New) The composition of claim 52, formulated in a pharmaceutically acceptable carrier, auxiliary or excipient.

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***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the Drawings submitted 8/22/1997 were indicated as informal.

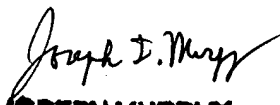
***Advisory Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Murphy whose telephone number is (571) 272-0877. The examiner can normally be reached Monday through Friday from 7:30 am to 5:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa, can be reached on (571) 272-0829.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph F. Murphy, Ph. D.  
Primary Examiner  
Art Unit 1646  
June 13, 2005

  
**JOSEPH MURPHY**  
**PATENT EXAMINER**